REMARKS

Claims 1-33 are pending in this application. By this Amendment, claim 30 is amended and claim 33 is added. No new matter is added. Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested.

Applicants appreciate the courtesies shown to Applicants' representative by Examiners Wang and Ryan during the July 22, 2008 personal interview. Applicants' separate record of a summary of the substance of the personal interview is included in the following remarks.

The Office Action, in paragraph 3, rejects claim 30 under 35 U.S.C. §112, second paragraph, for an informality. Claim 30 is amended to obviate the rejection.

Accordingly, reconsideration and withdrawal of the rejection of claim 30 under 35 U.S.C. §112, second paragraph, are respectfully requested.

The Office Action, in paragraph 15, indicates that claim 30 recites allowable subject matter. Specifically, claim 30 is indicated as being allowable if rewritten to overcome the rejection under 35 U.S.C. §112, second paragraph, and to include all the features of the base claim and any intervening claims. Applicants appreciate this indication of allowability, but respectfully submit that claim 1, from which claim 30 depends, is allowable for at least the reasons set forth below.

The arguments presented below reiterate arguments presented throughout prosecution of this application and again specifically address ongoing assertions made in the most recent Office Action regarding particularly the application of the applied reference to the subject matter of the pending claims.

The Office Action, in paragraph 4, rejects claims 1-7 and 10-13 under 35 U.S.C. §102(b) over U.S. Patent Application Publication No. 2003/0056440 A1 to Aoyama et al. (hereinafter "Aoyama").

Claim 1 recites, among other features, a power system that includes a stop control module that selects a hydrogen purge mode that activates and controls a purge gas supply module to remove hydrogen from a hydrogen separation module or a hydrogen no-purge mode that stops the purge gas supply module as a stop control mode, and executes a stop control in the stop control mode to stop a supply of hydrogen to fuel cells.

Aoyama fails to teach a power system that includes any feature that can reasonably be considered to correspond to the stop control module having the combination of all of the features positively recited in claim 1. Aoyama does not describe, expressly or impliedly, the claimed stop control module. Because Aoyama fails to describe each and every element recited in claim 1, in accordance with MPEP §2131, the rejection of claim 1 as being anticipated by Aoyama should be withdrawn.

In support of maintaining the rejection of claim 1 over Aoyama, the Office Action, as did previous Office Actions, continues to rely on an analysis that first seems to mischaracterize the claimed stop control module as allegedly reciting features that the module is "capable" of performing.

The Office Action then, as did previous Office Actions, continues to present a discussion of case law asserting that "[i]t has been held that the recitation of an element is capable of performing a function is not a positive limitation but only requires the ability to so perform." As Applicants have argued routinely in the past, "it is important in the face of this assertion in the [Office] Action to recognize that Applicants are not reciting functional limitations, and are not relying on an assertion, for example, that one or more of the positively recited claim elements are 'capable' of performing a function. Rather, it is the Examiner's assertion, without first establishing that the Aoyama reference presents explicitly, or inherently, features which correspond to each of the positively recited claimed features, that certain features of Aoyama may be considered to be capable of performing certain of the

functions recited in the pending claims" (emphasis added) upon which the Office Action relied in continuing to find the positively recited claim terms anticipate. Applicants have again carefully reviewed this analysis and believe it to invert the legal precedents upon which the Office Action relies in support of its conclusions of anticipation.

The continued reliance on *In re Hutchison*, 69 USPQ 138, is flawed for at least the following reason. In *Hutchison*, the claims recited that certain materials which were known in the art were "adapted for use" in a new process. The *Hutchison* court determined that such "adapted for use" language did not constitute a patentable distinction. It is important to recognize that the positively recited claim features upon which the Applicants rely in this application do not recite any language such as "adapted for use," "'capable' of performing" (as is erroneously indicated by the Office Action), or any such other language. In the absence of such language, it is improper to continue to apply the judicial precedent set forth in *Hutchison* in the manner set forth in the Office Action. *Hutchison* simply does not apply to the facts of this case.

The Application of the other judicial precedents, which the Office Action recites, are equally flawed because the Office Action broadly paraphrases Applicants' claim language. As noted above, claim 1 recites, among other features, a stop control module that selects a hydrogen purge mode that activates and controls the purge supply module to remove hydrogen from the hydrogen separation module or a hydrogen no purge mode that stops the purge gas supply module as a stop control mode, and executes stop control in the stop control mode to stop the supply of hydrogen to the fuel cells. There is no module in Aoyama that has been shown that selects a hydrogen purge mode that activates and controls the purge supply ... or a hydrogen no-purge mode that stops the purge gas supply module, as is recited, among other features, in independent claim 1, as quoted above. The closest that the Office Action, as have previous Office Actions, can come to such an assertion is by stating that "[t]he controller

is also connected to the raw material line via valve [31], and thus has the capability to receive a stop signal for supplying hydrogen to the fuel and to activate a purge mode to purge gas or a no-purge mode to merely stop the hydrogen flow." This mischaracterization regarding what the claims positively recite, and the reliance on this interpretation in incorrectly applying the judicial precedents regarding what the claims do not recite, i.e., some feature being "capable" of performing a function, remain improper.

Applicants do not rely on functional limitations, or intended use, but rather, Applicants recite specific structural interrelationships which are not explicitly, or impliedly, taught by Aoyama.

Aoyama discloses a hydrogen generation device having a structure that does not require a purge gas supply (paragraph [0033]). The disclosed structure which includes a recycle purge gas pump that recycles hydrogen and purge gas, cannot reasonably be considered to teach, or to have suggested, any stop control module for activating and controlling in a hydrogen purge mode a purge gas supply module to remove hydrogen from a hydrogen separation module. Any control of purge gas disclosed in Aoyama is for controlling a temperature profile presented to the disclosed hydrogen separator membrane in order to reduce brittle failure of that membrane (see, e.g., paragraphs [0003], [0006], and [0008]). At least the above-quoted feature of the pending claims, regardless the broad interpretation that the Office Action takes in support of its conclusion that the features of the pending claims are taught by the reference, is in error. Specifically, it remains unclear how even the control unit 10 of Aoyama can reasonably be considered to activate and control, in any alleged hydrogen purge mode, a purge gas supply module, which the Aoyama disclosure specifically indicates is not required.

In response to Applicants previously having made many of the above-asserted arguments, this Office Action, in the Response to Arguments section at paragraph 14,

mischaracterizes the totality of Applicants' arguments with the simple assertion that "Applicant argues that Examiner's position is that any system with a shut down control can be considered to include a hydrogen purge module and will result in purge [is in error]." Clearly, without the bracketed portion the assertion at the bottom of page 33 makes no sense. At the top of page 34, the Office Action goes on to assert that "Examiner respectfully disagrees with Applicant's interpretation on the previous rejection." The Office Action then states that "[t]he fact that a system has a shut down control that controls switches and valves (para 0025-0026) is indicative of a control system (although one is not explicitly shown)." The Office Action goes on to conclude that this "not explicitly shown" control system in Aoyama "is capable of operating in such a purge manner." The Office Action strings together these suppositions in an attempt to support a conclusion that the Aoyama device, including some feature again which is "not explicitly shown," that is allegedly "capable of operating in such a purge manner," is somehow regarded as being "structurally the same as the *claimed* invention." This analysis on its face stretches the limits of a §102 rejection beyond reasonability and supportability based on any evidence presented, and particularly any explicit, or implied, disclosure in Aoyama.

For at least the foregoing reasons, Aoyama cannot reasonably be considered to teach a power system having the combination of all of the features positively recited in independent claim 1. Further, claims 2-7 and 10-13 are also not taught by Aoyama for at least the respective dependence of these claims directly or indirectly on an allowable base claim as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-7 and 10-13 under 35 U.S.C. §102(b) over Aoyama are respectfully requested.

The Office Action, in paragraph 6, rejects claims 8, 9, 12 and 13 under 35 U.S.C. §103(a) over Aoyama in paragraph 7; rejects claims 17-28 under 35 U.S.C. §103(a) over

Aoyama in view of U.S. Patent Application Publication No. 2001/0016276 A1 to Yamanashi; and, in paragraph 8, rejects claims 14-16 and 29 under 35 U.S.C. §103(a) over Aoyama in view of U.S. Patent No. 6,063,515 to Epp et al. (hereinafter "Epp").

Because neither of Yamanashi or Epp overcome the above-identified shortfalls in the application of Aoyama to at least to the combination of features positively recited in independent claim 1, claims 8, 9 and 12-29 also would not have been suggested by any combination of Aoyama with Yamanashi and Epp, for at least the respective dependence of these claims directly or indirectly on an allowable base claim, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 8, 9 and 12-29 under 35 U.S.C. §103(a) over Aoyama in combination with the other applied references are respectfully requested.

The Office Action, in paragraph 9, rejects claims 1-6, 10-13, 17, 18, 24, 27 and 28 under 35 U.S.C. §103(a) over U.S. Patent Application Publication No. 2003/0072978 A1 to Meyer et al. (hereinafter "Meyer") in view of Epp and further in view of U.S. Patent No. 6,410,175 B1 to Tillmetz et al. (hereinafter "Tillmetz"); in paragraph 10, rejects claims 8, 9 and 26 under 35 U.S.C. §103(a) over Meyer and Epp in view of Tillmetz and further in view of Aoyama; in paragraph 11, rejects claims 1, 7, 14-16, 19, 20, 23, 25 and 29 under 35 U.S.C. §103(a) over Epp in view of Meyer; and, in paragraph 12, rejects claims 21 and 22 under 35 U.S.C. §103(a) over Epp in view of Meyer and further in view of Yamanashi.

The Office Action asserts that a stop control module is inherently disclosed in Meyer because Meyer's fuel gas processing system is "capable of having a stop control module" (emphasis added). This assertion relies on the same factually and legally flawed analysis presented with respect to the rejection of claim 1 over Aoyama, described above.

Further, the Office Action, as did previous Office Actions, states "[a]lthough a stop input module and stop control module is not specifically mentioned in Meyer et al.'s system, one inherently exists. This is exemplified by the fact that it talks about a shut down system and the controlling of a switch [132], valves [141, 152, 154, 156], and blowers [116B, 116C]." The Office Action then goes on to state that "[a]dditionally, it is capable of program med to stop with the no-purge mode in addition to the purge mode as described above, what with the inherency of the controller due to the sensors and valves present." It remains clear that, in interpreting Meyer, the Office Action attempts to assert that any shut down of any system that can loosely be considered to include any hydrogen module will result in purge and therefore somehow inherently anticipate the positively recited claim features.

The above conclusion overly broadly construes any reasonable manner by which the standard for inherency can be applied. As explained in MPEP §706.02, a reference used under 35 U.S.C. §102 "must teach and every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." The MPEP section states that the Patent Office must provide rationale or evidence intending to show inherency. Citing *In re Robertson* (citations omitted), MPEP §2112 states, "[i]nherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient" (emphasis added). It is well established that "[i]n relying upon the theory of inherency, the Examiner must provide a basis in fact or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art" (emphasis added). This standard is simply not met here, as it was not previously, based on the loose conclusions that because Meyer is "capable of stopping," it must inherently include some stop control module that is capable of switching the system between a purge mode and a no-purge mode.

This loosely constructed set of conclusions simply does not meet the applicable standard that the allegedly inherent feature necessarily flows from the teachings of the prior art reference.

The attempted rebuttal of Applicants' previously-asserted argument regarding inherency, on page 34 of the Office Action, states "[t]he fact that valves and switches are controlled are indicative that there is some sort of control controlling them (i.e., control unit). Examiner is unsure why Meyer et al.'s system fails to inherently have a control unit, when control processes are clearly being done." Applicants are not asserting that Meyer may or may not include some sort of control unit. Rather, Applicants arguments are directed at the conclusion that simply because Meyer may include some start and/or stop control for some operation in the disclosed system, it does not necessarily flow that a feature of "a stop control module that selects a hydrogen purge mode that activates and controls the purge gas supply module to remove hydrogen from the hydrogen separation module or a hydrogen no-purge mode that stops the purge gas supply module as a stop control mode, and executes stop control in the stop control mode to stop the supply of hydrogen to the fuel cells" exists from any disclosure of Meyer. The start and stop mechanism in Meyer could be virtually any control mechanism. The Office Action generally concedes as much. The error is in then asserting that any such "some sort of control controlling" valves and switches necessarily teaches the recited feature.

Epp and Tillmetz are not applied in any meaningful way to the subject matter of, for example, independent claim 1, that would overcome the above-identified shortfalls in the application of Meyer to the combination of all of the features positively recited in that claim. As such, any permissible combination of Meyer, Epp and Tillmetz has not been properly shown to have suggested the combination of all of the features positively recited in at least independent claim 1. Further, claims 2-6, 10-13, 17, 18, 24, 27 and 28 also would not have been suggested by any of the asserted combination of applied references for at least the

respective dependence of these claims directly or indirectly on an allowable base claim, as well as for the separately patentable subject matter that each of these claims recites.

Further, because neither of Aoyama or Yamanashi is applied in a manner that would overcome the shortfalls in the application of Meyer and Epp to the subject matter of independent claim 1, none of the other attempts at rejection of the subject matter of any of the dependent claims over the combination of applied references have merit.

Finally, the rejection of claims 31 and 32 under 35 U.S.C. §103(a) as being unpatentable over Aoyama or Meyer in view of Tilmetz and Aoyama, and further in view of U.S. Patent No. 6,391,484 to Keskula et al. (hereinafter "Keskula") equally fails because Keskula is not applied in a manner that would overcome the above-identified shortfalls in the application of the other varying combinations of applied references to the subject matter of at least independent claim 1.

Accordingly, reconsideration and withdrawal of claims 1-29, 31 and 32 under 35 U.S.C. §103(a) as being unpatentable over the varyingly-asserted combinations of applied references are respectfully requested.

Applicants' representative presented the full scope of the above arguments regarding the allowability of the pending claims over the combinations of currently applied references to Examiners Wang and Ryan during the July 22 personal interview. Specifically, Applicants' representative noted that what the Examiners were relying on as allegedly merely functional limitations, to which they gave no patentable weight, were positively recited claim features that the Examiners were not giving a broadest reasonable construction in view of the plain meaning of the specifically recited claim terms, and the structural interrelationships recited in the pending claims. No agreement was reached. The Examiners maintained their position that the distinguishing features upon which Applicants are relying can broadly be construed to be functional limitations and therefore need not be given patentable weight. Applicants'

representative strongly traversed this assertion but the Examiners remained unpersuaded. Applicants, therefore, request careful reconsideration of the Examiners position in view of the full scope of the above arguments.

Added claim 33 recites, among other features, wherein the stop control module selects the hydrogen purge mode as the stop control mode when the stop control mode executes stop control to the fuel gas generation system for a long period of time, and the stop control module selects the hydrogen no-purge mode as the stop control mode when the stop control module executes stop control to temporarily stop the fuel gas generation system. The added claim is allowable over any combination of the applied references at least because of the dependence of each of these claims, directly or indirectly, from an allowable base claim, as well as the separately patentable subject matter that it recites. None of the applied references can reasonably be considered to teach or to have suggested such a combination of features.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-29 and 31-33, in addition to the indicated allowable subject matter of claim 30, are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number set forth below.

Respectfully submitted,

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Attachments:
Petition for Extension of Time
Amendment Transmittal

Date: July 24, 2008

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